

Amendments to the Specification

1. Page 1, before line 1 but after the title, insert the following:

---CROSS-REFERENCE TO RELATED APPLICATIONS

The present application is a continuation of U.S. Patent Application No. 09/998,159 filed December 3, 2001, which claims priority under 35 U.S.C. § 119 of Austrian Patent Application No. 1442/2001, filed September 13, 2001.

BACKGROUND OF THE INVENTION

1. Field of the Invention---;
2. Page 1, after line 9, insert the following:

---2. Discussion of Background Information---;
3. Page 3, before line 1, insert and center the following:

---SUMMARY OF THE INVENTION---

4. Page 3, after line 13, insert the following:

---The present invention provides a device for tempering at least parts of the cross section of sequentially produced rails from the rolling heat and for the subsequent cooling

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thereof to room temperature. This device consists essentially of (a) a roller table that comprises rolls and receives said rails, (b) an alignment device for axially aligning the rails, (c) a transport device for transporting the rails in transverse direction, (d) a hardening device for hardening the rails which comprises a manipulator arrangement for manipulating the rails to be hardened, and (e) a cooling bed for the hardened rails, said cooling bed comprising a deposit region. The roller table (a) further comprises a positioning device for positioning in longitudinal direction the rails which are supplied thereto, which positioning device comprises said alignment device (b). The transport device (c) comprises at least two supporting arms that are simultaneously movable between the rolls of the roller table. Each of these arms, in turn, comprises at an end section thereof a rest for supporting said rails. The rests on the supporting arms can be moved in transverse direction from an alignment position in the region of the roller table into the deposit region of the cooling bed (e) and can be raised in such a way that only the rests are above an upper surface of the roller table. The hardening device (d) comprises at least two liquid cooling devices and manipulators for moving the rails. These liquid cooling devices are arranged next to one another and essentially parallel to the alignment device (b). Furthermore, the deposit region of the cooling bed is arranged next to and parallel to the lengthwise extension of the liquid cooling devices.

In one aspect of the device, the device may have dimensions which render it capable of processing rails having a length of greater than 50 m. In another aspect, at least the head

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of a rail may be hardenable by using the device. In yet another aspect, the roller table may support a rail in two cross-sectional regions thereof.

According to another aspect of the device, the positioning device may comprise an electronically controllable device and/or an alignment bar and/or a stop.

According to still another aspect, the liquid cooling devices may comprise submersion basins. These submersion basins may comprise stops for leveling and aligning the rails. The stops may be arranged, for example, horizontally and/or vertically. In another aspect, a holding-down device for pressing down the rails against said stops may additionally be provided.

According to a further aspect, each submersion basin may have manipulators assigned to it. Each of said manipulators may be capable of, e.g., taking the rails off the rests of the transport device (c), introducing the rails into a submersion basin, lifting the rails out of a submersion basin, and/or placing the rails back on said rests. Moreover, said manipulators may be capable of introducing a rail “head down” into a submersion basin.

According to yet another aspect of the device, each of said supporting arms may have exactly one rest arranged thereon. In another aspect, the supporting arms may originate in the region of the roller table. Alternatively, the transport device (c) may be arranged in the region of the cooling bed.

The present invention also provides a process for tempering at least parts of the cross

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section of sequentially produced rails selected from running rails and railroad rails from the rolling heat and for subsequently cooling said rails to room temperature. This process comprises axially aligning said rails, transporting the rails to a hardening device and treating at least parts of the cross section of the rails therewith, and allowing the rails so treated with the hardening device to cool to room temperature. In this process, the residence time in the hardening device exceeds the supply frequency of the rails to be tempered and the process is carried out by means of a device as described above.---

5. Page 5, before line 20, insert and center the following:

---BRIEF DESCRIPTION OF THE DRAWINGS---

6. Page 7, before line 1, insert and center the following:

---DETAILED DESCRIPTION OF THE INVENTION---

7. Page 9, line 1, please change “Patent Claims” to ---WHAT IS CLAIMED IS:---